Introduction to Data Engineer Profile

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DATA ENGINEERING

Learning Objectives

- You will learn Why Data Engineer profile is in demand?
- You will learn the difference between different Data Science related profiles
- You will learn Data Engineer role and responsibilities
- You will learn about Data Engineer technologies





Why we did not have a Data Engineer profile earlier?



Data expanding







When I say Everything is getting record.

I mean it ©



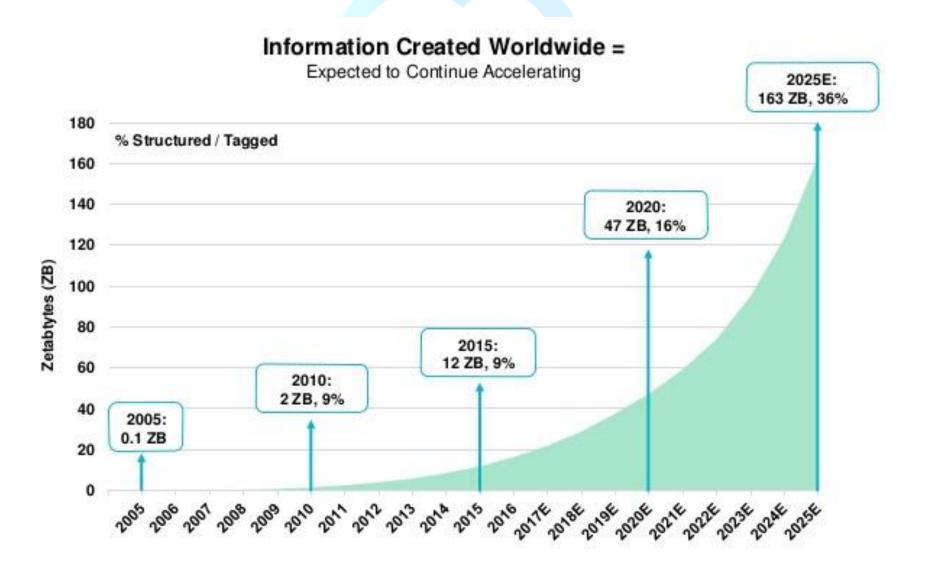
Social media stats



- Whatsapp handle 60 billion messages a day
- Google process 40,000 search queries every second
- Average user spends 35 minutes on Facebook a day
- 500 million Tweets sent each day
- 300 hours of video are uploaded to Youtube every minute



Exponential growth of Data







1 Zettabytes = 1 trillion Gigabyte



the 10-Megabyte Computer System



- 10-Megabyte Hard Disk
- 51/4" Dual-Density Floppy Disk Back-up
- 8-Bit Microprocessor (Optional 16-bit Microprocessor)
- Memory-Mapped Video Display Board
- Disk Controller
- Standard 64K RAM (Optional 256K RAM)
- . 10-Slot S-100 Motherboard

only \$5995

COMPLETE

New From IMSAI

- 28-Amp Power Supply
- 12" Monitor
- Standard Intelligent 62-Key ASCII Keyboard (Optional Intelligent 86-Key ASCII Extended Keyboard)
- . 132-Column Dot-Matrix Printer
- CP/M* Operating System

You Read It Right ...
All for \$5995!

IMSAI...Thinking ahead for the 80's

415/635-7615

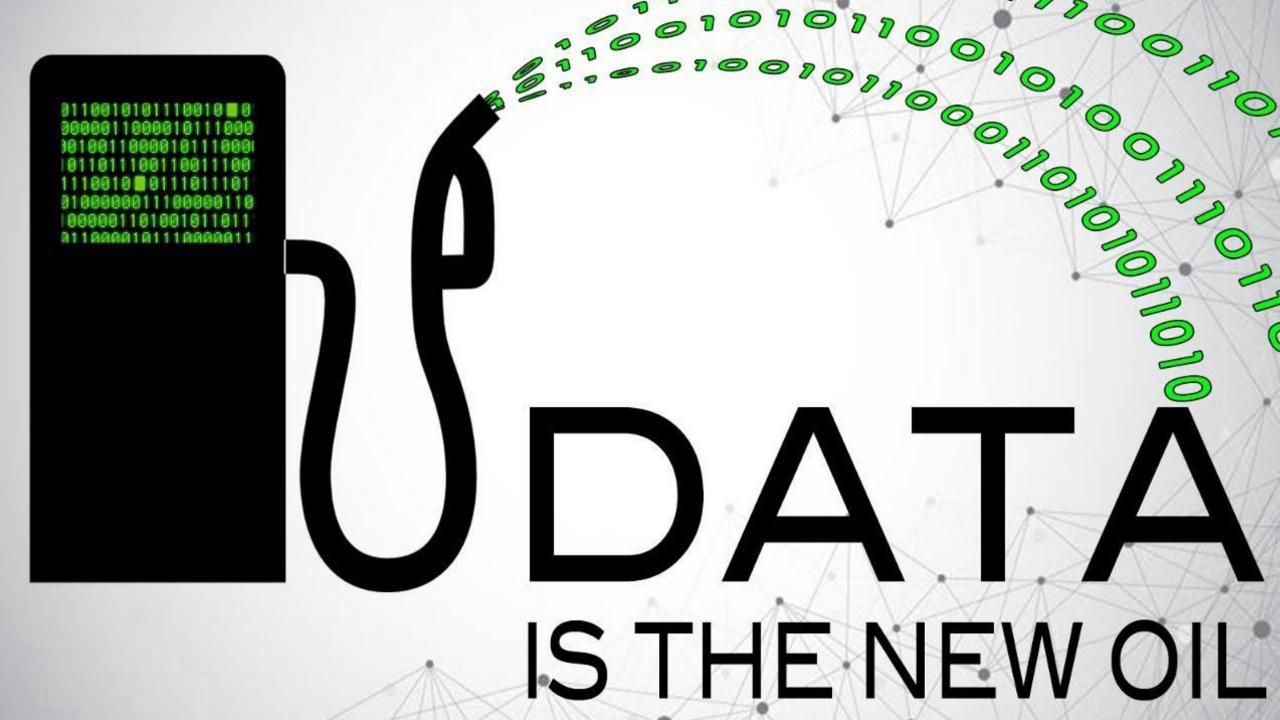
Computer Division of the Fischer-Freitas Corporation

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Once upon a time ©

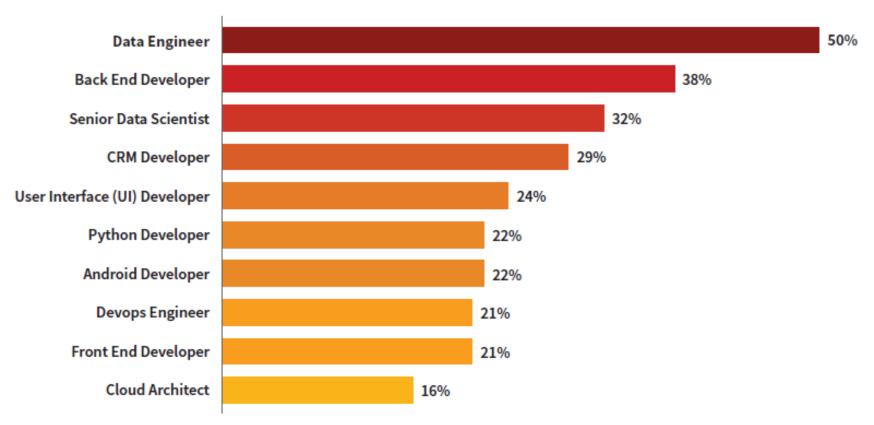




Data Engineer – Top in Demand Job

FASTEST GROWING TECH OCCUPATIONS

YEAR-OVER-YEAR GROWTH





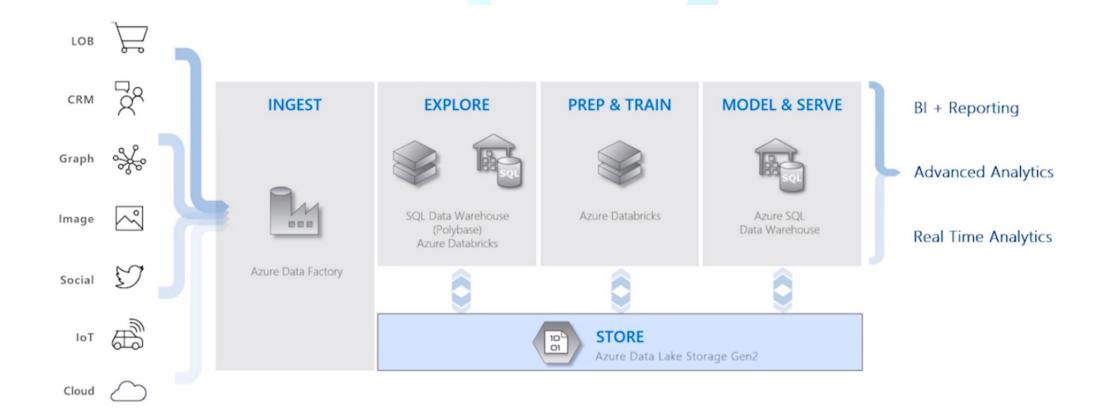
Why Data Engineers?



We need dedicated professionals in order to handle this large amount of information.



Data Life Cycle





Source: Microsoft

Data Life Cycle

















SQL Data Warehouse (Polybase) Azure Databricks





Azure Databricks

MODEL & SERVE



Azure SQL Data Warehouse BI + Reporting

Advanced Analytics

Real Time Analytics







STORE

Azure Data Lake Storage Gen2









Source: Microsoft





Learning Outcome

- You should now why Data Engineer role is in so much demand?
- You should know Data Engineer role and responsibility
- You should aware of Data Engineering technologies



